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APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. 09/464,497 12/15/99 A 'HEARN 99-120-4 **EXAMINER** QM01/1025 J W BURROWS CATERPILLAR INC LOPEZ, F PATENT DEPARTMENT **ART UNIT** PAPER NUMBER AB 6490 100 N.E.ADAMS STREET 3745 PEORIA IL 61629-6490 DATE MAILED: 10/25/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

		Application No.	Applicant(s)	
Office Action Summary		09/464,497	A'HEARN ET AL.	
		Examiner	Art Unit	
		F. Daniel Lopez	3745	
	The MAILING DATE of this communicati or Reply	on appears on the cover she t with	the correspondence address	
THE - Extended after aft	HORTENED STATUTORY PERIOD FOR MAILING DATE OF THIS COMMUNICA ensions of time may be available under the provisions of 3 or SIX (6) MONTHS from the mailing date of this communic e period for reply specified above is less than thirty (30) day to period for reply is specified above, the maximum statute ure to reply within the set or extended period for reply will, reply received by the Office later than three months after the patent term adjustment. See 37 CFR 1.704(b).	TION. 7 CFR 1.136 (a). In no event, however, may a reation. ays, a reply within the statutory minimum of thirty period will apply and will expire SIX (6) MON by statute, cause the application to become AB.	eply be timely filed y (30) days will be considered timely. THS from the mailing date of this communication. ANDONED (35 U.S.C. § 133).	
1)	Responsive to communication(s) filed	on <u>13 August 2001</u> .		
2a)□	This action is FINAL . 2b)	★ This action is non-final.		
3)□	3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.			
Disposi	tion of Claims			
4) 🖂	Claim(s) 1-16 is/are pending in the app	olication.		
	4a) Of the above claim(s) is/are withdrawn from consideration.			
5)	5) Claim(s) is/are allowed.			
6)🖂	6)⊠ Claim(s) <u>1 and 4-8</u> is/are rejected.			
7) 🖂	7) Claim(s) 2. 3. 9-16 is/are objected to.			
8)[Claims are subject to restriction	n and/or election requirement.		
Applica	tion Papers			
9)	The specification is objected to by the E	Examiner.		
10)				
11)		•	disapproved.	
12)	The oath or declaration is objected to b			
Priority	under 35 U.S.C. § 119			
_	Acknowledgment is made of a claim for	r foreign priority under 35 U.S.C. §	119(a)-(d) or (f).	
a) All b) Some * c) None of:				
	1. Certified copies of the priority do	cuments have been received.		
	2. Certified copies of the priority do		pplication No	
		onal Bureau (PCT Rule 17.2(a)).	_	
	See the attached detailed Office action for			
14)∐	Acknowledgement is made of a claim for	or domestic priority under 35 U.S.	C. § 119(e).	
Attachmei	nt(s)			
16) 🔲 No	tice of References Cited (PTO-892) tice of Draftsperson's Patent Drawing Review (PTC ormation Disclosure Statement(s) (PTO-1449) Pap	D-948) 19) Notice of	Summary (PTO-413) Paper No(s) Informal Patent Application (PTO-152)	

U.S. Patent and Trademark Office PTO-326 (Rev. 01-01) Application/Control Number: 09/464,497

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Response to Amendment

Applicant's arguments filed August 13, 2001, have been fully considered but they are not deemed to be persuasive.

Applicant's arguments with respect to claim 1 have been considered but are deemed to be moot in view of the new grounds of rejection.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

Claim 1 is rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Budzich.

Claim Rejections - 35 USC § 103

Claims 4-8 are rejected under 35 U.S.C. § 103 as being unpatentable over Budzich in view of Johnson. Budzich discloses a fluid system with a single source (10) of pressurized supply fluid that receives fluid from a reservoir (16), comprising first and second fluid circuits connected to the single source, having respecting first (e.g. 12) and second (e.g. 13) directional control valves connected to respective first and second cylinders having head end and rod end ports; wherein each directional control valve includes supply inlet, exhaust and first and second outlet ports connected respectively to the supply source, reservoir, and head end and rod end ports of the respective cylinder; with each directional control valve movable from a central position to first and second operating positions, with the supply inlet, exhaust and first and second outlet ports blocked in the central position, and with the supply inlet port communicating with the second outlet port, and the exhaust port communicating with the first outlet port in the first operable position; wherein when the first directional control valve is in the second operable position, the supply inlet port communicates with the first outlet port, and the second outlet port communicates with the supply inlet port; and wherein when the second directional control valve is in the second operable position, the supply inlet

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port communicates with the first outlet port, and the second outlet port communicates with the exhaust port; but does not disclose first and second vented load check valves disposed between first and second outlet ports, respectively, of the first directional control valve, and head end and rod end ports, respectively, of the first fluid cylinder; a pilot control system having a control input arrangement connected to a source of pressurized pilot fluid, with first and second directional control valves being movable from their center positions by pilot fluid directed through first, second, third and fourth pilot conduits; with first and second vented load check valves each having pressure chambers in communication with head end or rod end ports, respectively, through orifice conduits, and the pilot control system includes respective first and second two position valves, positioned between the respective pressure chamber and the reservoir, spring biased to a closed position and movable in response to pilot fluid directed to respective first and second ends of the first directional control valve; with a third and fourth vented load check valves disposed between first and second outlet ports, respectively, of the second directional control valve, and head end and rod end ports, respectively, of the second fluid cylinder; with third and fourth vented load check valves each having pressure chambers in communication with head end or rod end ports. respectively, through orifice conduits, and the pilot control system includes respective third and fourth two position valves, positioned between the respective pressure chamber and the reservoir, spring biased to a closed position and movable in response to pilot fluid directed to respective first and second ends of the second directional control valve.

Johnson teaches, for a fluid circuit having a directional control valve which includes supply inlet, exhaust and first and second outlet ports connected respectively to a supply source, reservoir, and head end and rod end ports of a cylinder; and movable from a central position to first and second operating positions, that there are first and second vented load check valves (20) disposed between first and second outlet ports, respectively, of the first directional control valve, and head end and rod end ports, respectively, of the first fluid cylinder; a pilot control system having a control input arrangement (22) connected to a source of pressurized pilot fluid, with the directional

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control valve being movable from its center position by pilot fluid directed through first and second pilot conduits (24, 26); with first and second vented load check valves each having pressure chambers (74) in communication with head end or rod end ports, respectively, through orifice conduits (82), and the pilot control system includes respective first and second two position valves (90), positioned between the respective pressure chamber and the reservoir, spring biased to a closed position and movable in response to pilot fluid directed to respective first and second ends of the first directional control valve, for the purpose of preventing creep of the cylinder.

Since Budzich and Johnson are both from the same field of endeavor, the purpose disclosed by Johnson would have been recognized in the pertinent art of Budzich. It would have been obvious at the time the invention was made to one having ordinary skill in the art to add first and second vented load check valves disposed between first and second outlet ports, respectively, of the first directional control valve of Budzich, and head end and rod end ports, respectively, of the first fluid cylinder; a pilot control system having a control input arrangement connected to a source of pressurized pilot fluid, with first and second directional control valves being movable from their center positions by pilot fluid directed through first, second, third and fourth pilot conduits; with first and second vented load check valves each having pressure chambers in communication with head end or rod end ports, respectively, through orifice conduits, and the pilot control system includes respective first and second two position valves, positioned between the respective pressure chamber and the reservoir. spring biased to a closed position and movable in response to pilot fluid directed to respective first and second ends of the first directional control valve; and add third and fourth vented load check valves disposed between first and second outlet ports, respectively, of the second directional control valve of Budzich, and head end and rod end ports, respectively, of the second fluid cylinder; with third and fourth vented load check valves each having pressure chambers in communication with head end or rod end ports, respectively, through orifice conduits, and the pilot control system includes respective third and fourth two position valves, positioned between the respective pressure chamber and the reservoir, spring biased to a closed position and movable in

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response to pilot fluid directed to respective first and second ends of the second directional control valve, as taught by Johnson, for the purpose of preventing creep of the first and second cylinders.

Conclusion

Claims 2, 3 and 9-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Imada refers to a regenerative circuit for a cylinder.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Lopez whose telephone number is (703) 308-0008. The examiner can normally be reached on Monday-Thursday from 6:30 AM -4:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Look, can be reached on (703) 308-1044. The fax number for this group is (703) 308-7763. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0861.

F. Daniel Lopez Primary Examiner Art Unit 3745

October 22, 2001